

Adherence with dermatology consultant recommendations: A retrospective study of 417 hospital dermatology consultations

Alexander Hines, MD¹, Elliott Campbell, MD², Laura Hornback³, BS, Maria Sokola, MD⁴, Misty Hobbs, MD⁵, Perry Hooper, MD⁶, Jenna Yamamoto, BA³, Parin Davari, MD⁷, Srikanth Vangapandu, MD, MPH⁸, Amber Bettis, MA⁹, Stuart Tobin, MD¹⁰

¹ Department of Internal Medicine, Mayo Clinic, Rochester, Minnesota

² Department of Dermatology, Mayo Clinic, Rochester, Minnesota

³ University of Kentucky College of Medicine, Lexington Kentucky

⁴ Department of Neurology, Cleveland Clinic Foundation, Cleveland, Ohio

⁵ Department of Internal Medicine, Mayo Clinic, Jacksonville, Florida

⁶ Department of Dermatology, Indiana University, Indianapolis, Indiana

⁷ Department of Internal Medicine, Highland Hospital, Oakland, California

⁸ Dermatologists of Central States, Dayton, Ohio

⁹ Department of Surgery, University of Kentucky, Lexington, Kentucky

¹⁰ Division of Dermatology, University of Kentucky, Lexington, Kentucky

Corresponding author:

Alexander Hines, MD
Mayo Clinic Department of Internal Medicine
200 1st St SW
Rochester, MN USA 55901

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To the Editor: The value of inpatient dermatology consultation is well established and presumably reflects execution of the consultant's recommendations. At many institutions, dermatologists performing hospital consultations rely on the primary team to implement recommendations. Adherence has been an active area of research in numerous medical specialties, but the existing data within dermatology is limited.¹⁻³ This study describes overall adherence with the consulting team's recommendations and investigates how recommendation characteristics relate to adherence.

We performed a retrospective chart review of all inpatient dermatology consultations from March 1, 2012-March 31, 2017 at University of Kentucky Medical Center (Lexington, Kentucky, USA). Primary team adherence with the consulting dermatologist's recommendations was determined based on the presence of an order in the medical record.

417 consultations for 393 patients were included for analysis. Patients were 52% (n=206) male and 82% (n=323) non-Hispanic white. Full adherence was achieved for 48.4% (202/417) of consultations (i.e. all recommendations from the consultation had full adherence) and for 67.4% (595/883) of recommendations. When using each recommendation as a unit, a higher number of recommendations per consultation was associated with higher full adherence ($P < 0.001$) and lower nonadherence ($P = 0.004$). Diagnostic recommendations had higher full adherence than therapeutic recommendations (84.0% vs. 65.2%, $P < 0.001$), and recommendations to discontinue or continue therapies had high full adherence (Table I).

77% (n=677) of recommendations were for initiation of a new treatment. Topical therapies had lower full adherence rates (54.0% vs. 74.3%, $P < 0.001$), higher rates of modification (18.4% vs. 11.2%, $P = 0.025$), and higher rates of nonadherence (27.7% vs 14.5%, $P < 0.001$) compared to systemic therapies. Topical steroids were the most common recommendation overall and

66 compared to systemic steroids had lower full adherence (52.1% vs. 75.0%, $P < 0.001$) and higher
67 nonadherence (25.9% vs. 12.5%, $P = 0.025$). The same pattern was seen for antimicrobials but
68 the differences were not statistically significant (Table II).

69 The 67.4% full adherence rate in our study is lower than previously reported rates of 70% to
70 93%.¹⁻³ Similar to our study, previous studies of hospital dermatology consultations have found
71 topical treatments account for the majority of recommendations, with topical steroids as the most
72 common recommendation overall.^{3,4} Accordingly, it is notable that our study found
73 nonadherence for topical therapies overall (27.7% vs. 14.5%) and topical steroids (25.9% vs.
74 12.5%) were approximately double that of their systemic counterparts. There is evidence that
75 patient adherence with topical treatment is inferior to oral treatment in the outpatient setting;
76 however, the reason for healthcare provider nonadherence requires further investigation.⁵

77 Limitations include lack of data regarding rationale for nonadherence, consequences of
78 nonadherence, or differences in adherence based on severity of dermatologic disease.
79 Awareness of recommendations with low adherence will allow the consulting dermatologist to
80 monitor accordingly, investigate the rationale for nonadherence, and offer alternative treatment
81 plans when appropriate. Future studies should focus on confirming inferior adherence for topical
82 therapies, assessing the impact of adherence on patient outcome, and investigating strategies to
83 effectively increase primary team's adherence with dermatologic recommendations.

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Table I. Adherence by recommendation type

	No. (%) of recommendations		
	Full adherence*	Adherence with modification†	Nonadherence‡
Recommendation category			
All recommendations	595 (67.4)	109 (12.3)	179 (20.3)
Therapeutic	505 (65.2)	109 (14.1)	161 (20.8)
Diagnostic	84 (84.0)	0 (0)	16 (16.0)
Consultation	6 (75.0)	0 (0)	2 (25.0)
Therapeutic recommendations			
Initiate	409 (60.4)	109 (16.1)	159 (23.5)
Continue	63 (96.9)	0 (0)	2 (3.1)
Discontinue	33 (100)	0 (0)	0 (0)
Total number of recommendations			
1	97 (55.7)	34 (19.5)	43 (24.7)
2-3	295 (65.8)	52 (11.6)	101 (22.5)
≥ 4	203 (77.8)	23 (8.8)	35 (13.4)

* Order appears exactly as recommended

† Modification to the dosing (potency, vehicle, or schedule) or use of a different medication in the same class with the same therapeutic purpose

‡ No order placed for the recommendation

Table II. Initiation of topical and systemic therapies

	No. (%) of recommendations		
	Full adherence	Adherence with modification	Nonadherence
Overall			
Topical	250 (54.0)	85 (18.4)	128 (27.7)
Systemic	159 (74.3)	24 (11.2)	31 (14.5)
Steroids			
Topical	147 (52.1)	62 (22.0)	73 (25.9)
Systemic	54 (75.0)	9 (12.5)	9 (12.5)
Antimicrobials			
Topical	50 (56.8)	18 (20.5)	20 (22.7)
Systemic	33 (71.7)	7 (15.2)	6 (13.0)

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